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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/735,096	12/12/2003	William Tsun	5670-7DV	1585

7590 03/15/2005

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EXAMINER

OPIE, GEORGE L

ART UNIT PAPER NUMBER

2126

DATE MAILED: 03/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary	Application No. 10/735,096	Applicant(s) Tsun et al.	
	Examiner George L. Opie	Art Unit 2126 2154	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Status

- 1) ☒ Responsive to communication(s) filed on 12 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) ☐ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ☐ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) ☐ is/are objected to.
- 8) ☐ Claim(s) ☐ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ☐ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on ☐ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) ☐ All b) ☐ Some * c) ☐ None of the CERTIFIED copies of the priority documents have been:
1. ☐ received.
2. ☐ received in Application No. (Series Code / Serial Number) ☐.
3. ☐ received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. & 119(e).

Attachment(s)

- 14) ☒ Notice of References Cited (PTO-892) 17) ☐ Interview Summary (PTO-413) Paper No(s) ☐.
- 15) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 18) ☐ Notice of Informal Patent Application (PTO-152)
- 16) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ☐.
- 19) ☒ Other: Text Docs for USP6,058,426 USP5,748,882

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DETAILED ACTION

1. Request for copy of Applicant's response on floppy disk:
Please help expedite the prosecution of this application by including, along with your amendment response in paper form, an electronic file copy in WordPerfect, Microsoft Word, or in ASCII text format on a 3½ inch IBM format floppy disk. Please include all pending claims along with your responsive remarks. Only the paper copy will be entered -- your floppy disk file will be considered a duplicate copy. Signatures are not required on the disk copy. The floppy disk copy is not mandatory, however, it will help expedite the processing of your application. Your cooperation is appreciated.

2. The U.S. Patents used in the art rejections below have been provided as text documents which correspond to the U.S. Patents. The relevant portions of the text documents are cited according to page and line numbers in the art rejections below. For the convenience of Applicant, the cited sections are highlighted in the *text documents*.

3. Claim Rejections - 35 U.S.C. § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-12 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Huang (U.S. Patent 5,748,882) in view of Godwin et al. (U.S. Patent 6,058,426).

As to claim 1, Huang teaches a method for monitoring a task executing on a data processing system (monitor for ... application program, p4 3-11) comprising the steps of:

providing the task configured to properly execute requests which are terminated in progress and restarted from an initial start point (watchd daemon 104 ... will monitor the process and restart it if necessary, p5 16-35)

determining if the task is executing properly (determine whether the process 103 is hung or has crashed, p5 1-9) and

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restarting the task if it is not executing properly (Restarting of fault tolerant process 103 when it crashes or hangs is done by watchd daemon 104, p4 49-57) comprising the step of reinitiating execution by the task of requests in the system (all processes 103 in the group are restarted, p11 41-48). Huang does not explicitly disclose the additional limitations detailed below.

Godwin teaches a control system with a task (manager 202, p7 40-53) having an associated work in process queue (in-memory linked list, p11 3-10) and an associated work pending queue (request queue database 204 ... stores requests that are pending, p7 40-53).

It would have been obvious to combine Godwin's queue structures with the restart teachings of Huang, because the task queues provide effective mechanisms for organizing requested lists of managed processes to facilitate processing/handling of the specified tasks/requests.

As to claim 2, Godwin teaches the placing requests in the work in process queue in the work pending queue (p9 14-51) and reinitiating execution by the task of requests from the work pending queue (request to start or resume an application is processed by ... making a call to the MOB to insert the application into the in-memory linked list, p11 3-10).

Godwin does not recite clearing the work in process queue, however, it would have been obvious to implement Huang's restart process "which [identifies tasks that] must all be restarted if any fault-tolerant process 103 in the group hangs or crashes", p4 52-57 so that the work in process queue is properly populated with the specified requests/tasks to be executed.

As to claims 3-4, Huang teaches a method wherein a plurality of interrelated tasks are monitored by a watchdog task (watchd daemon 104 ... continually monitors each fault tolerant process 103 specified in list 139, p4 52 - p5 19) and wherein at least one of the plurality of interrelated tasks places requests in association for execution in a second of the plurality of interrelated tasks and executes requests from its associated list received from a third of the plurality of interrelated tasks (processes table 139 shows execution list and entries in group table 141 indicate associated tasks that can be specified for execution monitoring by the given watchd daemon, p11 16-51).

As to claims 5-8, note the rejections of claims 1-4 above. Claims 5-8 are the same as claims 1-4, except claims 5-8 are apparatus claims and claims 1-4 are method claims.

As to claims 9-12, note the rejections of claims 1-4 above. Claims 9-12 are the same as claims 1-4, except claims 9-12 are computer program product claims and claims 1-4 are method claims.

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5. The prior art of record and not relied upon is considered pertinent to the applicant's disclosure. Specifically, the below reference(s) will also have relevancy to one or more elements of the Applicant's claimed invention as follows:

U.S. Patent No. 6,058,490 to Allen et al. which teaches the restarting identified processes with given dependencies;

U.S. Patent No. 5,715,386 to Fulton et al. which teaches the process monitoring with relaunching responsive to certain conditions; and,

U.S. Patent No. 5,440,726 to Fuchs et al. which teaches the watchdog process for monitoring and reexecuting specified tasks.

Contact Information:

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system.

Status information for published applications may be obtained from either Private-PAIR or Public-PAIR.

Status information for unpublished applications is available through Private-PAIR only.

For more information about the PAIR system, see <http://pair-direct.uspto.gov>.

Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

All responses sent by U.S. Mail should be mailed to:

**Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450**

Hand-delivered responses should be brought to Crystal Park Two, 2021 Crystal Drive, Arlington, VA., Sixth Floor (Receptionist). All hand-delivered responses will be handled and entered by the docketing personnel. Please do not hand deliver responses directly to the Examiner.

The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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All OFFICIAL faxes will be handled and entered by the docketing personnel. The date of entry will correspond to the actual FAX reception date unless that date is a Saturday, Sunday, or a Federal Holiday within the District of Columbia, in which case the official date of receipt will be the next business day. The application file will be promptly forwarded to the Examiner unless the application file must be sent to another area of the Office, e.g., Finance Division for fee charging, etc.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist at **(703) 305-9600**.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to George Opie at (571) 272-3766 or via e-mail at *George.Opie@uspto.gov*. Internet e-mail should not be used where sensitive data will be exchanged or where there exists a possibility that sensitive data could be identified unless there is an express waiver of the confidentiality requirements under 35 U.S.C. 122 by the Applicant. Sensitive data includes confidential information related to patent applications.



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